📌 3. Project Planning Phase (Detailed)

Project planning involves determining the tools, frameworks, milestones, and responsibilities required to complete the project within the given duration — in this case, **30 days**. Proper planning ensures smooth development, balanced workload, and timely submission of a fully functional Freelancing MERN Application.

🗂️ Technology Stack (Tools Chosen & Why)

To ensure scalability, ease of development, and real-time responsiveness, the following modern full-stack technologies were selected:

Layer	Technology	Purpose
Frontend	React.js	Build a dynamic, component-based UI
	Tailwind CSS	Utility-first CSS for responsive, clean styling
	Axios	Handle HTTP requests to backend APIs
Backend	Node.js	Non-blocking JavaScript runtime for server-side code
	Express.js	Web framework for defining RESTful routes and middleware
Database	MongoDB Atlas	NoSQL cloud database for flexible document storage
Auth	JSON Web Token (JWT)	Secure authentication and route protection
Deployment	Render (Cloud Hosting)	Hosting for both frontend and backend with auto redeploy
Version Control	Git + GitHub	Code versioning, collaboration, and submission hosting

---

🧱 Modules & Responsibilities

The project is modularly broken down to improve manageability and enable each section to be independently developed, tested, and reused.

Module	Responsibility & Purpose
Auth Module	- Handles user registration and login - Issues JWT tokens for secure access - Identifies user roles (Client, Freelancer, Admin)
Projects Module	- Enables Clients to create projects - Lists all projects for Freelancers - Handles project selection and assignment
Freelancer Profile	- Displays freelancer details, average rating, and past feedback - Helps clients assess credibility
Admin Module	- Admin views all users - Can block/unblock users based on behavior or misuse
Feedback Module	- Allows Clients to give ratings and written reviews after work submission - Ratings influence Freelancer profiles

Each module is connected but logically separated, supporting **modular development and code reuse**.

📅 Project Timeline (30 Days)

A structured week-by-week plan ensures balanced progress, testing time, and deployment buffer before the deadline.

Week	Focus Area	Deliverables
Week 1	🔧 **Setup + Authentication**	- Setup GitHub repo and folder structure - Initialize backend server and frontend app - Implement user registration and login APIs - Add JWT-based token system and auth middleware - Build login/register UI
Week 2	🛠️ **Project CRUD Operations**	- Create Project model & routes (CRUD) - Allow Clients to post new projects - Show project list to Freelancers - Test endpoints via Postman and connect with frontend
Week 3	💬 **Bidding + Feedback**	- Enable Freelancers to place bids - Clients can view/select bids

Week	Focus Area	Deliverables
		- Add Work Submission flow - Add Feedback system (rating + comments) - Build Freelancer profile view with ratings
Week 4	🧪 **Final Testing + Deployment**	- Build Admin Panel for managing users - Implement block/unblock functionality - Conduct complete testing of all flows - Deploy frontend + backend on Render - Prepare documentation, screenshots, and demo video

---

👥 Team Role Allocation (Example for 2 members)

Member	Role Assignment
Sarvesh (You)	Backend API development, Authentication, Role-based logic, Deployment
Teammate	Frontend UI design, Form integration, Feedback and bid flow, Admin panel UI

You may update this table with real team member names and contributions.

📝 Planning Notes

- Backend routes were carefully structured using REST principles and Express middleware.
- State management in frontend was kept minimal using React hooks (useState, useEffect) due to the limited project scope.
- Frequent testing checkpoints were planned using Postman and browser DevTools to avoid debugging overload near the deadline.
- GitHub was used daily to push progress and track version changes.

✅ With a clear tech stack, modular approach, and week-wise timeline, the project planning phase ensured consistent and manageable development for the full-stack freelancing platform.